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td-net  
Network for Transdisciplinary Research

## td-conference 2011

**Evaluation of Inter- and Transdisciplinary Research  
Experiences and reflections on best practice  
Berne, 14-16 September 2011, University of Bern**





## The conference will take place at the University of Bern, in the University Main Building, Hochschulstrasse 4, 3012 Bern

Opening and all plenary sessions: Kuppelraum

Workshops/paper sessions: rooms 105 / 214 / 304 and 331

Post-conference workshop, saturday 17: room 002, Hallerstrasse 12, behind University Main Building

### How to get to the venue from the station:

Go down to the station hall, follow the sign "Universität" and take the elevator to the top ("Schanze"). After hopefully being able to enjoy the beautiful sight of the Swiss Alps, turn right and you face the monumental Main Building. The Kuppelraum is right on top on the fifth floor.

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## **Evaluation of Inter- and Transdisciplinary Research Experiences and reflections on best practice**

### Theme

This is the final of a series of four annual conferences dedicated to practices, methodologies and epistemologies of inter- and transdisciplinary research and teaching. The first conference focussed on the theme of *Problem Framing* as a decisive and determining initial phase of the research process (see td-conference 2008). At the second conference we addressed issues of *Integration* that cut across the whole research process (see td-conference 2009), from problem framing and problem analysis to the *Implementation* of research in a life-world context, which was the topic last year (see td-conference 2010). This year, national and international experts are invited to share their knowledge about *Evaluation Models* for inter- and transdisciplinary research proposals, processes and outcomes in their larger scientific, socio-political and cultural contexts.

In contrast to most disciplinary research practices, interdisciplinary and transdisciplinary projects are characterised by a variety of disciplines and various practitioners in professional fields outside academia. As a consequence, general evaluation methods that have been developed for disciplinary work can only be used to assess specific disciplinary contributions but are hence not appropriate for assessing specific inter- or transdisciplinary goals, processes and achievements. Major challenges for evaluators of inter- and transdisciplinarity include making decisions about which dimensions to select and possibly rank when judging the quality of a project – is it the ‘original’ contribution to a particular field, the potential for innovation, the quality of integration, the broader impact or rather the learning process itself, for example. In general, what is missing are established frames of reference and bench marks against which performance and outcomes are measured.

To map and examine these issues is a necessary first step for a systematic overview and critical review of the current methodologies as well as for setting an agenda for the evaluation of inter- and transdisciplinarity (ID and TD) as a tool for learning, improvement, innovation and excellence of this type of research.

The three major aims of the conference are therefore:

- to present the state-of-the-art of evaluation criteria, procedures and tools to measure the quality and potential for innovation of ID and TD research projects,
- to critically review the values that underlie and drive those criteria and methods while respecting the plurality of scientific cultures and traditions,
- to identify and prioritise the problems and needs that pertain to quality assessment in all fields of ID and TD research, practice and teaching as well as those that arise in individual fields or disciplines.



## Programme

Wednesday, September 14	
13:00 – 15:00	Registration
15:15 – 15:30	<b>Welcome</b> Kuppelraum <b>Angelika Kalt</b> , Deputy Director SNSF <b>Pasqualina Perrig-Chiello</b> , President td-net / U of Bern
15:30 – 16:00	<b>Introduction: Framing Evaluation</b> <b>Christian Pohl</b> , Co-Director td-net
16:00 – 16:30	Coffee break
16:30 – 17:15	Opening Keynote Kuppelraum <b>How to Identify Good Science?</b> <b>Transdisciplinarity Adds Another Challenge</b> Speaker: <b>Dieter Imboden</b> , President Research Council SNF / President EUHORCs / ETH Zurich
17:30	Conference Reception, Apéro

Thursday, September 15	
07:45 – 09:00	Registration (will stay there during the conference duration)
08:15 – 10:15	Plenary 1 Kuppelraum <b>Experiences with Reviewing Inter- and Transdisciplinary Projects</b> Speakers: <b>Laura Raaska</b> , Biosciences and Environment Research Unit, Academy of Finland, AKA <b>Angelika Kalt</b> and <b>Bernhard Schmid</b> , FA-ID, SNSF <b>Beat Butz</b> and <b>Pasqualina Perrig-Chiello</b> , NRP/DORE, SNSF
10:15 – 10:30	Coffee break

Thursday, September 15	
10:30 – 12:00	Parallel Sessions I: Workshop 1, Papers 1-3 105 <b>W1: Sustainability Sciences I</b> (Haas, Smetschka, Bogner) 304 <b>P1: Assessing the Broader Impact I</b> (Hering, Hoffmann   Helgenberger   Wolf) 214 <b>P2: Evaluating Proposals and Cooperations (EU and Foundations)</b> ( <del>Martisune Schwagrowski-Buyse</del>   Rogga (ex P5)   Martin Han   Lyall) <del>331</del> <b>P3: <del>Quality Concepts and Formative Evaluation</del></b> (Abraham (new P5)   Vilsmaier (new P5))
12:00 – 13:30	Lunch break
13:30 – 15:00	Parallel Sessions II: Workshops 2-3, Papers 4 304 <b>W2: Learning Procedures</b> (Bergmann, Di Giulio, Defila) 331 <b>W3: Peer Review Processes</b> (Rossini, Wymann, Zimmermann) 105 <b>P4: Process Assessment I</b> (Mader   Darbellay, Paulsen   Moschitz, Home)
15:00 – 15:30	Coffee break
15:30 – 17:00	Plenary 2 Kuppelraum <b>Reflections on Evaluating Inter- and Transdisciplinary Collaborations</b> Speakers: <b>Daniel Stokols</b> , UCI California <b>Veronica Boix-Mansilla</b> , Harvard University
19:30	Conference Dinner (at Restaurant Rosengarten)

## Friday, September 16

08:30 – 10:00 Plenary 3

Kuppelraum **Assessments of the Broader Impact of Inter- and Transdisciplinary Research**

Speakers:

**Jack Spaapen**, Royal Netherlands Academy of Arts and Sciences, KNAW

**Robert Frodeman**, Center for the Study of Interdisciplinarity CSID, University of North Texas

10:00 – 10:30 Coffee break

10:30 – 12:00 Parallel Sessions III: Workshops 4-5, Papers 5

304 **W4: Measuring the Broader Impact I**  
(Frodeman, Holbrook, Pohl)

105 **W5: Sustainability Sciences II**  
(Haas, Smetschka, Bogner)

331 **P5: Quality Concepts and Informative Evaluation**  
(Scheffler | Rogga (new P2) | Roughley | Vilsmaier (ex P3) | Abraham (ex P3))

12:00 – 13:30 Lunch break

13:30 – 15:00 Parallel Sessions IV: Workshop 6, Papers 8-9

105 **W6: Sustainability Sciences III**  
(Haas, Smetschka, Bogner)

304 **P6: Process Assessment II** (Flanigan, Sutherland | Hegger, Dieperink, Van Zeijl-Rozema | Polk)

331 **P7: Teaching and Education**  
(Brundiers, Wiek | Sutherland Olsen | Walker)

214 **P8: Assessment Hermeneutics**  
(van Breda | Tempelhoff | Forbat)

15:00 – 15:30 Coffee break

15:30 – 17:00 **Panel**

Kuppelraum **Inter- and Transdisciplinary Research: Requirements for Evaluation Procedures**

Panelists: **Veronica Boix-Mansilla**, Julie Klein Thompson, **Philippe Moreillon**, Rudolf Stichweh, Jakob Zinsstag

Input and Chair: **Gertrude Hirsch Hadorn**, ETH Zurich

17:00 – 17:30 **Taking Stock and Looking Ahead**

17:30 Farewell Apéro

## POST-CONFERENCE PROGRAMME

Enrolment at the registration desk.

## Saturday, September 17

09:30 – 12:30 Workshop

002 **Competencies for Inter- and Transdisciplinary Research and Learning: Enhancing Communication and Training the Next Generation**  
Hallerstr. 12\*

Presentations by:

Julie Thompson Klein, Barbara Smetschka and Willi Haas, Veronica Boix Mansilla

Chair: Manuela Rossini

Discussants: Christian Bertsch and Dan Stokols

\*behind University Main Building, at the end of Gesellschaftsstrasse

## Notes

Workshop 2: room: 304

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**Learning Procedures: Best practices of Evaluating Inter- and Transdisciplinary Projects**

Organizers: *Matthias Bergmann* (Institute for Social-Ecological Research, ISOE); *Antonietta Di Giulio* and *Rico Defila* (Interfakultäre Koordinationsstelle für Allgemeine Ökologie, IKAÖ, University of Bern)

Inputs: *Sebastian Gölz* (Fraunhofer Institute for Solar Energy Systems, ISE); *Christian Bertsch* (Institute for Research, Innovation and School Development Vienna, IFIS)

*Description:* Societal problems often demand solution-finding processes that transcend the order of scientific disciplines and go beyond purely academic approaches of research. The heart of transdisciplinary research lies in these boundary crossings between disciplines and between academia and society, in the integration of knowledge from different cores of knowledge and in the methods supporting these processes. At the same time, this raises the question about quality standards and the practice of assessing this kind of research. There is no general, scientifically recognized “set” of criteria for good transdisciplinary research, no evaluation method shared and recognized by the scientific community.

Nonetheless, evaluation practices grew over the years, on one hand based on results of research projects investigating the issue of evaluation by, for example, screening transdisciplinary research projects/programs, their successes and failings and the resulting quality criteria, on the other hand based on evaluation strategies developed by researchers themselves or by reviewers being thrown into evaluation procedures.

In this workshop we will 1) give a short overview on the actual discourse on evaluation of transdisciplinary research; 2) present some principles for (self-)evaluation in transdisciplinary research; and 3) have two reports on evaluation procedures in two different fields and settings of research (sustainable consumption; research-education cooperation). Questions that will be discussed are e.g. the integration of actors from outside academia in the evaluation of research, the impact of self-evaluation on the collaboration within a research team, and the question who shall participate in the internal evaluation of a transdisciplinary project in order to ensure the quality of the evaluation process itself.

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Workshop 3: room: 331

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**Peer Review Processes for Transdisciplinary Articles:  
A Reflection on Journals’ Practices**

Organizers: *Manuela Rossini*, td-net and Institute of Advanced Study in the Humanities and the Social Sciences IASH, University of Bern; *Susanne Wymann* and *Anne Zimmermann*, CDE, University of Bern

With presentations by editors and reviewers of the following journals and book series:

GAIA: *Almut Jödicke* and *Ulrike Sehy*

JAR, Journal for Artistic Research: *Henk Borgdorff*

MRD, Mountain Research and Development: *Susanne Wymann*, and *Anne Zimmermann*

NSS, Natures-Sciences-Sociétés: *Claude Millier*

Other journals represented:

EspacesTemps (*Barbara Julien*); Configurations (*Manuela Rossini*)

*Description:* Publishing is an essential means of validation and communication of research. This is no different in transdisciplinary research, where publishing also aims at contributing to the development of society through sharing of knowledge. In the scientific world, authors need to disseminate and validate results, reflect on issues, and participate in debates. On the other hand, institutions and individuals are assessed according to their publication record – as probably the most influential of all current evaluation criteria. Occupying the space between article production and counting impact factors, journal editors and reviewers play an important role in defining and using rules to assess and improve the work submitted to them. Publishing transdisciplinary research poses specific challenges, in particular with regard to peer-review processes, as it addresses different knowledge communities with different value systems and purposes.

*Objective of the workshop:* The workshop will contribute to a reflection on the peer-review process, which we understand as an essential evaluative process in transdisciplinary research practice. More specifically, the workshop will reflect on how the peer-review process can be shaped to serve the specific needs and the promotion of transdisciplinarity.

*Approach:* No established set of rules exists as yet for reviewing transdisciplinary work. Exchange on reviewing and publishing experience can help us fill this lack. We have invited a few editors of journals who have been publishing work considered to be transdisciplinary to share their practices and ideas. In the first part of the Workshop, these guests will present their perspectives and review practices. Among the questions they will answer are the following:

- What is your understanding of transdisciplinarity and how should this be reflected in articles?
- What policy does your journal have with regard to transdisciplinarity?
- How do you guide your authors for producing TD articles?
- What review criteria have you set up and (how) do they differ from conventional review criteria?
- What is your review procedure for TD papers? Is it double-blind?
- How do you select reviewers?

The second part of the workshop will be open for a general exchange between all participants: we will discuss common challenges and critically review how they are addressed by each journal's specifically designed practices and rules.

*Target audience:* The workshop will be of interest to authors, reviewers, and publishers of transdisciplinary research. It will help us gain a better understanding of the complex issues at stake in producing, assessing, and publishing peer-reviewed transdisciplinary work. In addition, it will help participants develop very concrete ideas about how to improve writing, reviewing, and publishing practices and rules meant to serve the objectives of transdisciplinarity.

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Paper session 4: Process Assessment I  
room: 105 | chair: Theres Paulsen

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#### 4.1

Assessing Sustainability Initiatives in a Multicultural Network – The Approach of Regional Centres of Expertise on Education for Sustainable Development (RCEs, acknowledged by United Nations University)

*Clemens Mader*, University of Graz

Keywords: Regional Centres of Expertise (RCEs); education for sustainable development; multicultural; process assessment; storytelling

RCEs aim to build regional networks of actors, NGOs, GOs, research, educational or business institutions to exchange experience and contribute together on regional sustainable development. At the same time, RCEs are embedded in an international network of today more than 80 RCEs that cooperate in research and development programs. United Nations University – Institute for Advanced Studies (UNU-IAS), based in Yokohama, Japan serves as the Global Service Centre and supports RCEs in networking, knowledge exchange and development. The challenge for UNU-IAS as well as for individual RCEs is to work and cooperate in this multicultural environment of sustainability approaches, diverse regional challeng-

es and individual organizational structures of RCEs. RCE projects differentiate from poverty alleviation programs to Mangroves protection initiatives or social entrepreneurship and business initiatives to educational research and development actions and many more types of actions and programs. At the same time it is the aim of the Service Centre as well as by each RCE and the whole community to assess the local and global impact of the network.

RCE Graz-Styria has become one of the main drivers in the development of RCE assessment methodologies during the past years and has collected data by RCEs from across the globe to find ways for objective, qualitative and quantitative assessment. Methods used range from indicator-oriented assessment to qualitative process assessment as well as storytelling methodologies. They are oriented to be transdisciplinary and combine numerous characteristics:

- Direct involvement and cooperation with RCE actors from across the globe by physical workshops during RCE conferences or virtual meetings
- Mutual learning oriented by strong experience and knowledge exchange
- Involvement of students as “neutral” agents doing interviews and analysis
- Development of new assessment methodologies adopted for RCE requirements
- Involvement of various disciplines and cultures in the development of quality criteria to respect diverse sustainability approaches and cultural backgrounds

The global RCE community and their projects provide a manifold playfield for development and testing of transdisciplinary assessment methodologies. In the course of the presentation, experiences, outcomes and methods for sustainability impact assessment with RCEs will be presented and challenges discussed.

#### 4.2

The Challenge of Inter- and Transdisciplinary Research:  
The End of Evaluation as We Know It?

*Frédéric Darbellay* and *Theres Paulsen*, Institut Universitaire Kurt Bösch (IUKB), Switzerland

Keywords: evaluation process; complexity; case studies

The design of an evaluation process should be closely linked to the particular definition of the inter- and transdisciplinary approach of a submitted project at the epistemological, theoretical as well as conceptual level. We consider inter- and transdisciplinary research (ITDR) as a macro-proc-

**Main Organizer** td-net for Transdisciplinary Research  
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The association of the «Swiss Academies of Arts and Sciences» includes the Swiss Academy of Sciences (SCNAT), the Swiss Academy of Humanities and Social Sciences (SAHS), the Swiss Academy of Medical Sciences (SAMS), and the Swiss Academy of Engineering Sciences (SATW). Their collaboration is focused on early detection, ethic and the dialogue between science and society.

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